In These Woods

Cornell Cooperative Extension
Columbia and Greene Counties

Issue Three: 2023

Woodland **Enhancements**

Woodland enhancements can be broadly defined as any activity you pursue, or improvement you make, that supports your woodland stewardship goals.

This issue of In These Woods introduces some of the enhancements that we'll explore in more detail throughout the program. Remember that no matter the scope or scale, enhancements can deepen our connection with the woods and help protect the resources we value.

2023 Issues:

Issue 2 - Understanding Forest Ecology

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About Us

The mission of Cooperative Extension is to enable people to improve their lives and communities through partnerships that put experience and research knowledge to work. Extension staff and trained volunteers deliver education programs, conduct applied research, and encourage community collaborations. Our educators connect people with the information they need on topics such as commercial and consumer agriculture; nutrition and health; youth and families; finances; energy efficiency; economic and community development; and sustainable natural resources. Our ability to match university resources with community needs helps us play a vital role in the lives of individuals, families, businesses, and communities in our region.

You can learn more about the programs and services we provide on our website. You can also contact us directly to help overcome a challange, share stories and gather tools to help you achieve your goals. Below is the contact information for our two offices. We look forward to hearing from you.

Acra (Greene County)

Agroforestry Resource Center
6055 Route 23
Acra, New York 12405
(518) 622-9820

Hudson (Columbia County)

Extension Education Center
479 Route 66
Hudson, New York 12534
(518) 828-3346

In These Woods Woodland Stewardship Series is a collaboration among Cornell Cooperative Extension of Columbia & Greene Counties, New York City DEP, USDA Forest Service, and the Watershed Agricultural Council's Forestry Program

Cover photo by Hans Isaacson. National Association of State Foresters.
Water Diversion BMP in Siuslaw Model Forest. 2021

CCE Columbia & Greene's

Agroforestry Resource Center

Cornell Cooperative Extension's Agroforestry Resource Center (ARC) was established in 2003 to help sustain the vast, privately-held forest resources in the Hudson Valley, Catskill Mountains and surrounding region. It is home to the Agriculture and Natural Resources team who focus on regional education and outreach in all woodland and working landscape subject areas.

Agroforestry is defined as the combination of agriculture and forestry practices that create integrated, productive and sustainable land-use systems. These practices can include ginseng, mushrooms, maple and other high-value products.

Through a variety of programs and partnerships, CCE offers land stewards economically viable and ecologically sustainable practices to help preserve and manage woodlands. The ARC includes a diverse and talented group of natural resource educators, an interactive indoor space and a 142-acre model forest that supports an outdoor "laboratory" for demonstration, research and hands-on workshops.

To learn more about the Agroforestry Resource Center, visit:
Agroforestry Resource Center

Siuslaw Model Forest

Siuslaw (Sy-use-luh) Model Forest is our 142-acre living classrom. It's one of our greatest educational resources and sits right across the street from the Agroforestry Resource Center in Acra. Our Natural Resources team and its partners manage this diverse property for all to experience. It's home to innovative demonstration sites, habitat, trails, and real-world examples of woodland stewardship principles and best management practices.

Siuslaw as a Model

In 2007, Siuslaw was designated a NYC Department of Environmental Protection Model Forest. Siuslaw is one of four model forests in the region that all demonstrate the importance of sustainable land stewardship, forest health and water quality protection through education.

Today, Cornell Cooperative Extension hosts many public education programs in the forest and partners with researchers, ecological monitors, and other institutions and organizations like SUNY ESF and the Watershed Agricultural Council's Forestry Program to bring these resources to the community.

The Siuslaw Model Forest is open to the public during our regular business hours (8:30-4:00 Mon-Fri). There are miles of trails for non-motorized recreation and many interpretive signs that educate around best management practices and activities you can bring home to your woods.

Agroforestry

Check out our tree and understory crop demonstrations, along with the shiitake and oyster mushroom laying yard - great inspiration for your backyard or small commerical operation.

Timber Stand Improvement (TSI)

See the different stages of growth and practices employed to restore habitat or thin dense stands of trees to encourage healthy forest conditions.

Best Management Practices (BMP)

Walk the woods roads and learn about open topped culverts, broad based dips, water bars and other techniques for preventing erosion and protecting water.

Enhancements

There are bird nesting boxes, pollinator houses, American chestnut restoration planting, habitat thinnings and plenty of tree identification markers to keep you learning!

An Introduction to:

Enhancing the Stewardship of Your Forest

Peter J. Smallidge, State Extension Forester, Dept. of Natural Resources, Cornell University, Ithaca, NY. 2004.

This article is part of the Enhancing the Stewardship of Your Forests Manual written and compiled by:
Peter J. Smallidge, Shavonne E. Sargent, Kristi L. Sullivan, Gary R. Goff, and Diana L. Bryant.
Cornell University, Department of Natural Resources, Ithaca, NY. 14853.

Introduction

There are many activities you can do easily and on your own to help improve your woodlot through your role as a steward. First though, what is an improvement? Only you can define improvement. Some woodlot owners receive full satisfaction from letting their woodlots mature and develop through natural processes, and most woodlot owners have a special place or two in their woodlot that they never want to see change. These areas do not need to be "improved". Other woodlot owners are interested in increasing wildlife habitat or recreational opportunities. There is no obligation to manipulate your woodlands, but for woodlot owners wishing to make some changes there are several options.

This chapter provides a general overview to the book. More details on the subjects introduced here are available elsewhere in one or more chapters.

To access the full manual, please visit: Enhancing the Stewardship of Your Forest

Getting Started - Knowing What You Want

The pivotal and perhaps most important step in making your woodlot work for you is to clearly and explicitly state your objectives. Explicitly stating and then writing down your ownership objectives is the step that distinguishes deliberate management from those activities that are happenstance and that will often reduce your future options. Your objectives guide your actions. Clearly stated objectives provide direction, simplify the decision making process, and provide a standard to gauge success. Your management objectives reflect what you value about your forests. These are your tangible and intangible personal values and the values provided to your community as a result of your management activities.

Working in your woodlot can enhance the beauty and enjoyment your land offers.

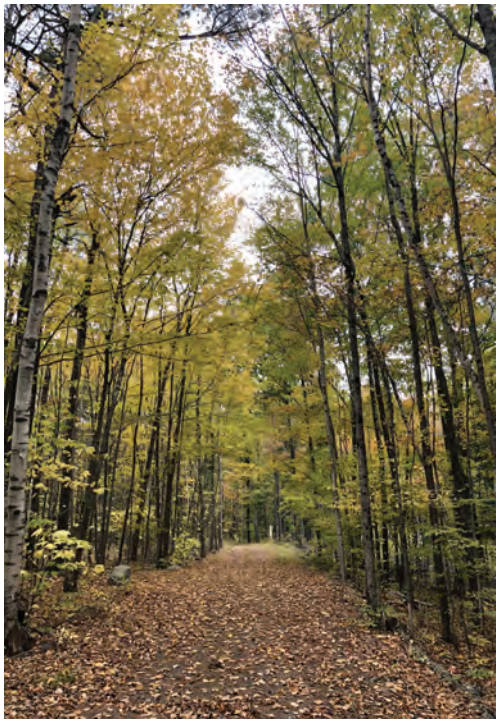
The first step in making your forest management objectives is thinking about your forest: why you own your forest, what you like about your forest, and how you want your forest to look next year, in ten years, and in the next generation of ownership. Many people own forests because they inherited them; purchased them as a place for privacy, wildlife viewing, or recreation; or purchased them for investment purposes. This is a start for your objectives as it explains perhaps a sentimental value, the value of retreat or seclusion, the value of an investment, or most likely some combination of the three. You may like to visit the part of your forest where you had a pleasant experience, a scenic overlook, the spot where you can always flush a grouse or run a rabbit, or the grove of red oak or sugar maple that will someday help support you in retirement. Finally, the vision of your future forest is probably closely aligned with what you like about your forest. For example, keeping the memorable spot unchanged, ready access to grouse cover, or an increase in the sawtimber value of your oak or maple stand. Again, your values help define your forest management objectives. These thoughts and visions are the basis of your forest management objectives because they provide the direction and the standards for successful management.

The next step is to talk with a professional DEC forester or private sector forester for help in organizing these objectives into a management plan. Once you have a good idea of what you want (your objectives) you can begin tackling a variety of activities. Below are several activities that can be accomplished by most woodlot owners, and that you can pursue with different levels of equipment and energy.

Walking Into Your Woodlot

One activity that is great for woodlot owners who are beginning to explore their property and think about forest management is to develop a trail system that gives you easy access. This is an important activity because trails allow for easier travel and thus allow the owners to see their property and think about what they might like to do next. Many private forest landowners comment that establishing a trail system was an important process to begin to manage their woodland.

The trail system can be as simple or elaborate as suits your needs. You can start from scratch or you can expand on an existing network already on your property. The history of your woodlot, your energy, your objectives, and your time will all influence the trails you establish. If your woodlot is fairly young, grew from an abandoned agricultural field, or has never been harvested, then you will likely need to start from scratch. Even if you previously had some logging done, and can use the existing trails, you may need to connect some trails to suit your needs. In any case, spend some time walking around to get a feel for the land and forest. Avoid wet areas, steep terrain, or other features that would make walking or cross country skiing difficult. Check with Cornell Cooperative Extension, DEC forester, or SWCD office for topography maps and aerial photographs that let you see the big picture. Depending on your preference, you might want to emphasize straight sections versus sections with curves. Once you have decided where the trail should be placed, you can flag the trail with plastic ribbon purchased at the hardware store or through a forestry supply company (it's called surveyor's flagging or tape).



Creating trails through your woodlot allows you to enjoy and easily access the forest.

Once flagged, the necessary trail width depends on your equipment and resources. You might decide to simply trim a few branches along the path. If you have a chainsaw and have taken part in a safety course then you might try a more aggressive clearing of the trail. If you are using portions of old logging trails, maybe you or your neighbor has a tractor and brush hog that can clear some of the brush or bramble more quickly. In any event, be careful and enjoy your improved access and new perspective.

In some situations you may be planning to harvest timber or firewood using a forester and logger. In this case, make sure you discuss with the forester and logger your interests in trails for hiking, skiing, bird watching or whatever, and ask to have this taken into account when the skid trails are being established. If the logger is being asked to do extra work, then bid prices will likely be lower, but you can have a nice trail system established with little effort on your part. Make sure your forester also provides oversight on re-seeding the skid trails to stabilize soils and prevent erosion.

Improvement Cutting

Improvement cuts fall into a category of forest management known as intermediate cutting, or cutting that occurs during the middle stages of a forest's development. Improvement cuts are done for several possible reasons: (1) to change the mixture of species present by removing undesirable species you wish fewer of; (2) to change how your forest looks, for example you might wish to remove saplings in an area to improve visibility; (3) to improve forest health by removing diseased or dying trees; or (4) to improve growth by reducing competition by thinning the woodlot. You can obviously mix and match your approach, but do so only after reviewing your management objectives.

Selecting trees to remove can be difficult. The specific trees to remove depends on your objectives, but might include diseased trees, trees of poor form, trees with weak wood, or trees that block a view. It's always a good idea to speak with a DEC forester or a private sector forester for assistance. Explain your objectives and have them help you select some trees for removal. If you have a large woodlot and the trees are of moderate size (maybe 8 to 12 inches in diameter) then you might be able to sell some for firewood. Otherwise, you'll need to either hire someone to complete the work or complete the work yourself with a chainsaw or by girdling the trees. If you sell firewood (or trade trees in your woodlot in return for firewood) contact a professional forester; there are potential and serious legal and financial pitfalls to be aware of and to avoid.

There's much more to learn about improvement cutting. Start with the chapter on thinning your woodlot.

Learn by Seeing More

Finally, let me suggest that some of you may find improvements to your woodlot by participating in a Cornell Cooperative Extension volunteer program know as "Master Forest Owner/COVERTS volunteers". This is not for everyone, but if you would like some additional training in basic woodlot management skills and especially if you would like to volunteer your time to neighbors and friends interested in forest management, then this peer-counseling program might work for you.

The Master Forest Owner (MFO) volunteer program is designed to provide private landowners with a "peer" they can talk to about forestry. MFO volunteers are not trained professionals and they cannot offer technical advice, but they own forest land, have experienced many of the situations their neighbors are working through, and are good listeners who know what resources are available for assistance.

Often a landowner will call the local office of Cornell Cooperative Extension or DEC with a request for assistance with forestry, but they are not ready to meet with a professional DEC forester or private forester. The extension agent or DEC may suggest a free visit from a local MFO to walk through the woodlot. The MFO will see the property, hear the landowner's interests and objectives, and witness some of the things the landowner has been doing. Ultimately the MFO may encourage the landowner to seek a free visit from a DEC forester or perhaps some literature before the forester visits. In the end, the landowner has made a new friend and gotten some good direction and the MFO has also made a friend and learned more about his or her woodlot by walking through other woodlots.

So consider the MFO program. You might be interested in a free visit from a MFO volunteer, someone who has been in your shoes and worried the same worries. You might also be interested in becoming one of those volunteers, especially if you have been active on your property and have a keen interest in helping your community and fellow woodlot owners.

New Master Forest Owner Volunteers are trained each spring.

Action Steps - What To Do Next

- Explicitly state your management objectives. If you have trouble thinking through all this, you might seek a visit from a MFO volunteer. Others may be ready for a free visit from a DEC forester who can help them with their objectives and perhaps a written management plan.

- Get maps and aerial photographs of your woodlot. Seek assistance with your extension agent, DEC forester, or SWCD office. This will help you see what your land has to offer and help with planning.

- Spend time in the woods walking around. Note that some sections of your woodlot may be good for some activities and in other areas you might focus on different things. Some objectives are compatible and others are mutually exclusive.

- Get involved in landowner associations. In Central New York and throughout the state the New York Forest Owners Association (NYFOA) is a group of private forest landowners who share a common interest in managing their woodlands. They have a bimonthly publication, several chapters and related activities, and two annual meetings. Elsewhere in the state similar groups are available also, such as the Catskill Forest Association (CFA) or the Tug Hill Resource Investment for Tomorrow (THRIFT).

- Finally, before you take any significant action, seek professional assistance from a DEC forester. DEC foresters will make a free visit to your property, they provide unbiased technical assistance, and can help you find answers to questions that will help you maximize the enjoyment you receive from your property.

Get involved with others forest owners by participating in woods walks, seminars, and other types of training. You'll learn how to be a good steward and will link with the network of other forest owners.

Activities for Passive Recreation

There are many recreational activities that do not require significant investment or enhancement. These are often considered “passive” and require little to no specialized development. Activities have minimal adverse impacts on the land and often utilize existing resources. These can include nature photography, meditation, birding and woods walking.

Here are a few fun, simple activities to help you enjoy the woods even more, courtesy of our friends at My Woodlot. Check out their site to learn about these and so many more: www.mywoodlot.com

Learn if rare species visit your land: Not every property has rare plants or animals, but some do. It’s important to know if your land supports any of these species, because it can influence when and how you can do other activities like cutting firewood, selling timber, and growing crops.

Build and install a blue bird box: New York's bluebird population has dropped 90% due to pesticides, shortage of natural nesting cavities, and competition from sparrows and starlings. You can help! Install a bluebird nesting box on your woodlot so these colorful songbirds can raise their families.

Establish and manage wildlife crop trees: Trees provide food, dens, and nest sites for wildlife, but some trees are more useful to animals than others. Once you find trees that provide the most value to wildlife, you can cut adjacent trees to give the remaining ones more room to grow.

Install a trail camera: Animals have better senses than we do, and they can be skittish when they know a human is nearby. A well-placed trail camera can take pictures of elusive wildlife without you needing to be there.

Nurture your beatiful plants: Which plants on your woodlot most catch your eye? Create a list and take pictures of the flowers, bushes, or trees you enjoy the most. You can encourage, showcase, and add more of these plants over time.

Cypripedium acaule, Pink Lady Slipper

Attract song birds: The flute-clear notes of a wood thrush. The aerial acrobatics of an American woodcock. Your woodlot can support an astonishing variety of birds, but different birds have different needs. If you want to see more birds, create greater variety on your property.

Trail Enhancements

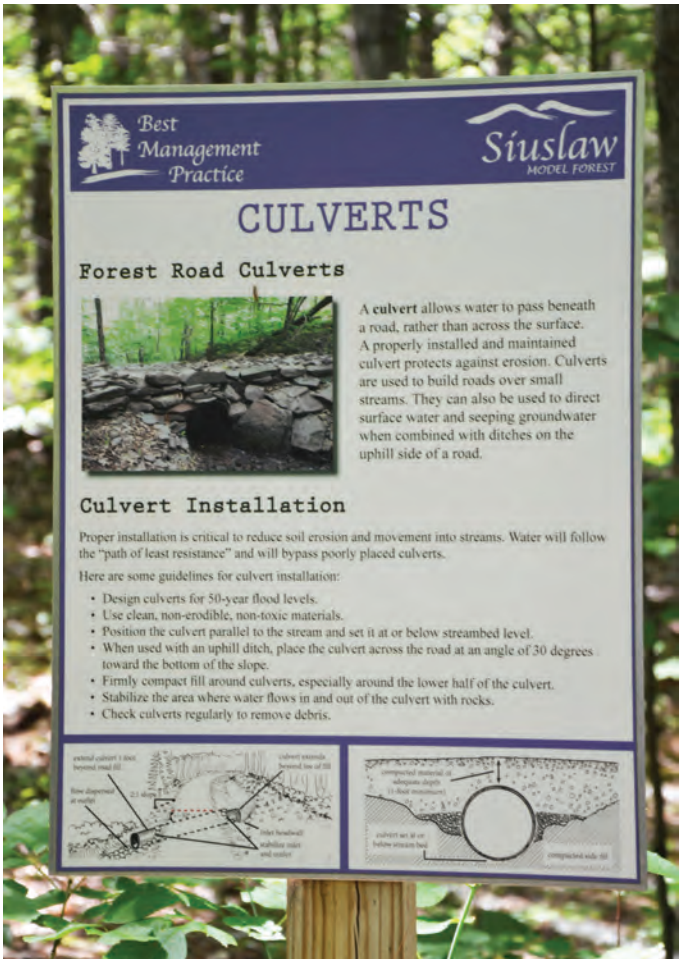
Trails are a common feature used for a wide variety of stewardship and recreational activities. Trails make the woods safe and accessible for both passive and active recreation. Trails for passive recreation tend to be more “low impact”, while trails for active recreation like horseback riding, mountain biking, and ATV/UTV use may need more deliberate design and management.

Many properties, both private and public, may have established trail systems already. These can be enhanced with activities like trail mapping or blazing trails, which can help both landowners and recreational users understand where they are and how to get around.

Trails can be as simple as walking the same path repeatedly until the vegetation is compacted. They can also be vast networks of skidder trails from a past timber harvest. No matter the activity or goal, the idea is to make trails last and reduce impact on the surrounding environment. One of the biggest challanges to maintaining trail stability is water flow. Where your site is and how you build trails are all factors in reducing the risk of wash-out. What if heavy rainfall and sediment run-off is inevitable in certain sections, what then?

Best Management Practices (BMPs) are techniques you can use to reduce the impact of water-flow, protect water quality and stay safe all at the same time! These practices may differ in scope and scale depending on your trail. What they all have in common is they divert water off the trail so that it flows smoothly into the surrounding understory.

If you’d like to see BMPs in action, take a tour of Siuslaw Model Forest!
Below are just a few of our interpretive signs.



Trail Enhancement Resources

A good first step in trail building and maintenance is understanding what kind of activity you want to pursue. This allows you to evaluate existing paths and roads and understand what new features might be needed. Below are resources on different trail types and the Best Management Practices to ensure long lasting enjoyment.

Sustainable ATV Trails:
The US Forest Service has a great, interactive resource for designing, building and managing trails for motorized vehicles. Use this tool to learn everything about sustainable ATV trail systems.

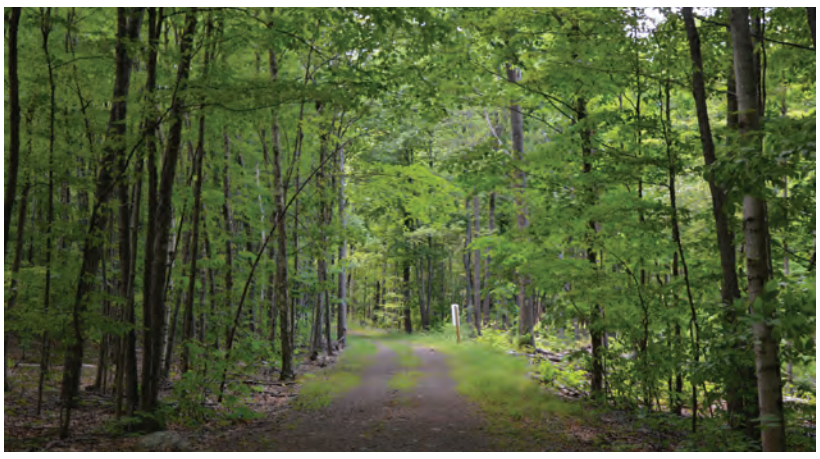
fs.usda.gov/visit/know-before-you-go/off-highway-vehicle-touring

BMP Guide to protect water quality from New York State highlights great techniques that can be applied to trails and forest roads. Even with no active forestry projects, these BMPs can still be implemented!

dec.ny.gov/docs/lands_forests_pdf/forestrybmp.pdf

My Woodlot has a collection of BMP resources that help us understand what practices apply to our situation and how to navigate implementation. Visit to learn more about BMPs and the wonderful world of forest roads and trails.

mywoodlot.com/interests/protecting-water/understand-best-management-practices



Wildlife & Habitat

For many people, seeing and supporting wildlife is their primary reason for visiting and owning woodlands. While many species differ in how they access and utilize resources, most wildlife need four basic things to survive and thrive.

1. **Water**: Wetlands, streams, ponds, puddles, springs, vernal pools, dew drops. Fun fact: many animals like woodpeckers meet most of their water requirements from the insects they eat.

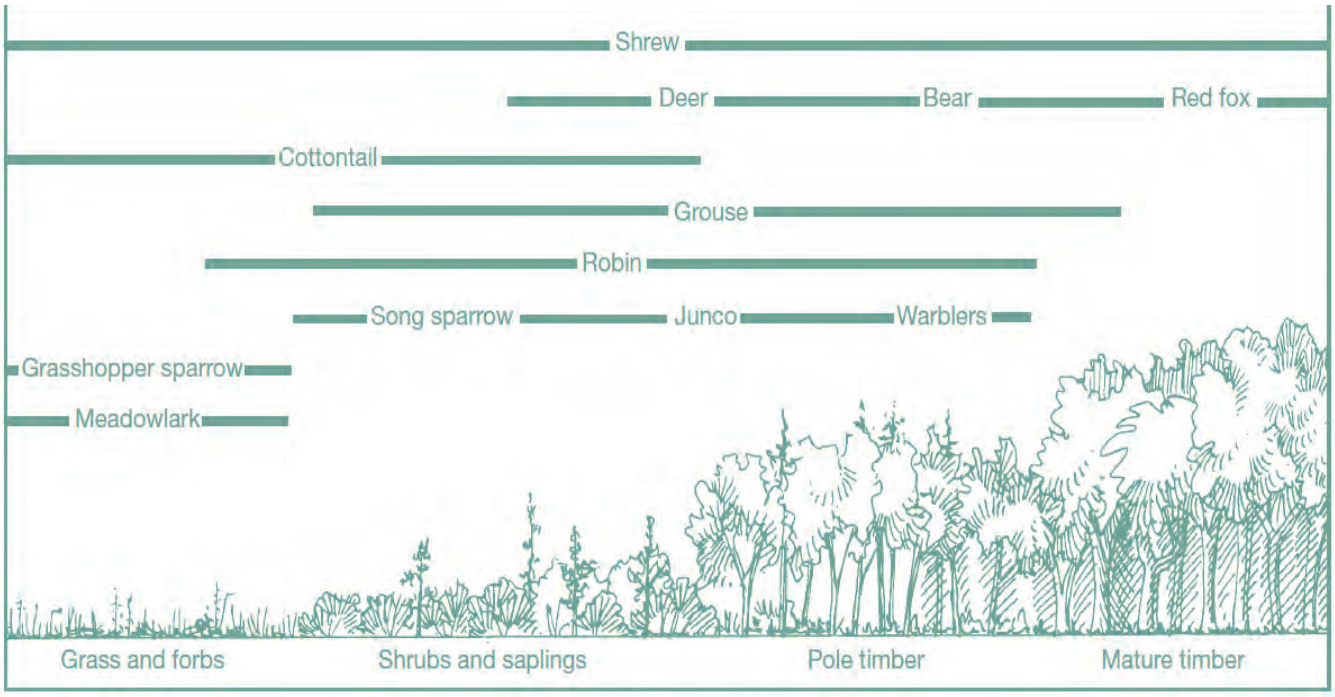
2. **Food**: Nuts, seeds, berries, insects, invertebrates, pollen/nectar, vegetation, roots and even other wildlife.

3. **Space**: Total area of continuous habitat to meet carrying capacity (total animals a space can support) or room to exist sustainably. This also applies to the type of habitat within a space (i.e., open field edge vs. dense forest)

4. **Cover/Shelter:** Tree canopies, multi-story vegetation, hedge rows, rocks, dens, downed logs, brush piles and standing dead trees. Anything animals can use as shelter or protection.

Succession

Understanding the habitat requirements of the animals you want to support is critical for making informed decisions about wildlife enhancements in your woodlands. Forest succession varies due to many factors - soil condition, topography, frequency of natural disturbances, population of deer, and amount of competing vegetation. The diversity and abundance of wildlife changes as a forest matures due to the quality and the quantity of food, water, cover, and habitat. Many wildlife species will require multiple successional stages in order to satisfy their habitat requirements. Landowners should keep in mind that the greater the diversity of ecological succession, the richer the diversity



From Forest Stewardship-Wildlife

Wildlife Enhancements

To increase the opportunity to view and support wildlife, you may need to enhance the habitat on your property. There are many common management practices that you can do to improve the quality of habitat on your land. Here are a few to get stated:

Messy Forest Floors and Brush Piles

This is exactly what it sounds like. Leaving piles of brush, branches from pruning or harvesting trees, or small saplings provides cover and den areas for a variety of wildlife. Increasing the debris across the understory supports biodiversity. This is very important for a healthy, resilient system. It benefits everthing from big game to small invertebrates. Look to the pictures below: the left shows a park like setting that supports very little biodiversity where the right shows a rich habitat with many layers of vegetation. Embrace the mess!

Songbirds will perch on the piles if they are located near food sources. Care should be taken in locating the piles. If they are placed at an edge where there is a high contrast, from grass to mature trees for example, piles will provide needed cover near food sources in the open area. Piles should be loose with the largest material on the bottom allowing for grasses to grow in between while leaving room for animals to get into the pile. Piles should be three to five feet high and up to fifteen feet in diameter. If piles are located near a water source, they may be used by reptiles and amphibians as areas for breeding, resting, and feeding.

Wildlife Enhancements Continued

Planting

Planting provides benefits to wildlife if the desired plant species are absent in the current habitat. Determine the wildlife species that you want to attract and evaluate your area based on the species' particular need. The following are a few general suggestions of plantings that can assist in improving habitat. Plantings should not be limited to the following as there are many options available. Further research on your part, as well as talking with the Cooperative Extension office, Master Gardeners, and local Soil and Water Conservation District will provide you with many more options that are too expansive to list in their entirety.

Mast trees: these are trees that provide fruit or seed as food for wildlife. Reading about your identified species food requirements will provide you with a basic understanding of what to plant. Deer find acorns as attractive as most children find candy. Oak, hickory, and beech trees will also provide food for chipmunks, squirrels, turkey, blue jays, ruffed grouse, bears, and wood duck. Remaining crab apples will help sustain American Robins that migrate before all snow cover has left.

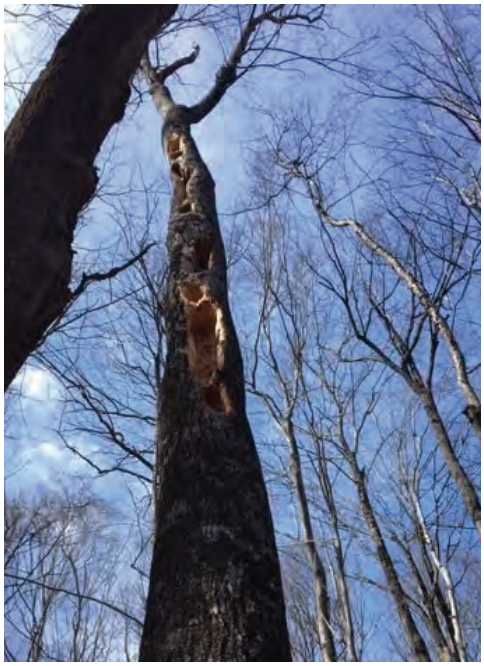
Evergreens and conifers: these trees provide cover for a variety of species. Ruffed grouse use hemlocks for shelter. The American Robin prefers to nest in these trees as does a variety of other bird species. Red squirrels enjoy the snack pine cones offer. The evergreens provide maximum shelter in the harsh winter months.

Fruiting shrubs and vine: if food sources are limited in your habitat, these are an excellent way to increase this limiting factor. Blackberries, elderberries, grapes, sumac, trumpet vine, and viburnums are a few examples of such food sources.

Grasses, wildflowers, and forbs: planting grasses provides insects for birds and young ruffed grouse and turkeys. They also provide food for deer and rabbits and hunting sites for owls, foxes, snakes, and hawks.

Plantings should encourage the safe transportation between two areas of cover. They are also useful around the homestead and along edges between fields and woodland. Only use native plants. Check out the resources page for native plant and tree species and sourcing!

Standing and Downed Dead Wood



Dead or dying trees that are still standing often have cavities or are hollow. These provide a source of shelter for cavity dwelling animals. They are also an important food source as many insects use them to lay their eggs. The hatching insects attract woodpeckers and nuthatches. The moist areas of decaying trees often produce fungi and mushrooms providing a food source for chipmunks and squirrels.

Caution should be used when leaving snags, dead or dying trees standing. As long as there is not a safety issue involved, some snags should be left for wildlife use. Eventually snags fall and become part of the down woody material. These are useful to a number of wildlife species. The usefulness varies with the stages of decomposition. Downed logs provide drumming sites for ruffed grouse as well as denning sites for a variety of mammals such as opossums, rabbits and skunks. Decomposing logs provide the moist, cool habitat required by many amphibians and reptiles. You may even see a downed log scratched up and turned by a bear!

Water

Water is an element that cannot be overlooked when creating or improving wildlife habitat. Many animals get sufficient water from their food sources but still appreciate the opportunity to have a place to get a drink. Additionally, water is used to bathe in, to provide breeding grounds for amphibians and reptiles, and is a source of insects and plants for food.

Natural seeps provide fresh water year round and are an important site for wildlife. They may be the only fresh water source during winter. The temperature of the seep water allows spring vegetation to get a head start on other areas. This provides a critical early food source.

Vernal pools are ephemeral wetlands which fill annually from precipitation, runoff and rising groundwater. Most years they become completely dry, losing water through evaporation and transpiration. The wet-dry cycle prevents fish from becoming established, yet present rich, although temporary habitat for many species including frogs and salamanders.

Protecting water quality by incorporating riparian buffers reduces bank erosion and filters sediment run-off. Overhanging vegetation helps maintain lower water temperatures for trout and falling debris is a great source of food and habitat sources for aquatic insects.

Agroforestry

While there are many ways to define Agroforestry, the USDA describes it as "The intentional integration of agriculture and forestry to create productive and sustainable farms, ranches and woodlands." Agroforestry happens when you thoughtfully combine an agricultural practice- food production in some form- with a forestry practice. This is usually in the form of growing or stewarding trees. Combining these practices, and doing it well, requires an understanding of these two worlds.

This 'intentional integration' can come in many shapes and forms, but when it comes down to it, there are 5 main practices associated with Agroforestry. With all of these practices, it is about putting the right plants, in the right location, for the right reason- remember, intentional!

Agroforestry Resource Center & Siuslaw Model Forest

Agroforestry practices have been implemented for centuries and are becoming increasingly popular across the region as landowners, farmers and hobbyists explore their food production and woodland management options. These practices can support many goals such as diversifying revenue streams, increasing sustainable use of underutilized land and to build resilience against climate change impacts. Check out of some of the practices we demonstrate in Siuslaw and other workshops.

Silvopasturing experiments by a CCE team member - not at Siuslaw!

Nut and fruit trees. Pawpaws coming soon!

Maple production and sugar bush stewardship.

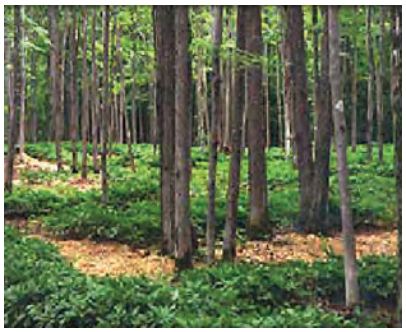
Shiitake and woodland mushroom foraging and cultivation.

Wild simulated ginseng and other understory crops

Agroforestry Practices

Forest Farming

Forest farming is the intentional manipulation, integration and management of woodlands under a forest canopy to produce non-timber products. This practice is one of the most adopted in NYS and includes products such as maple, mushrooms, and herbs such as the iconic American Ginseng. Forest farming keeps forests as forests while improving the value of woodlands.

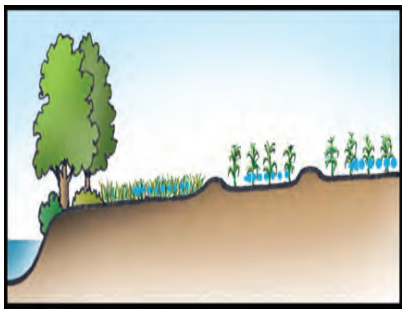


Silvopasture

Silvopasture combines timber, livestock and forage production on the same land. Trees provide long term returns while livestock generate an annual income. This practice offers its own unique challenges and requires a deep level of understanding of both livestock and silviculture in order to be successful.

Riparian Forest Buffers

Riparian forest buffers are natural or planted woodlands adjacent to water bodies. They are designed with trees, shrubs, and grasses to protect water resources from potential pollution. In many cases, the plants grown in these buffers are multifunctional. In addition to protecting our waterways, plants can be chosen that are in some other way useful to the grower.



Windbreaks or Hedgerows

This practice became popular in the US following the great dust bowl. Farmers came to realize that vast open fields can be vulnerable to high winds which can desiccate crops and cause soil loss. We learned that trees or shrubs can be planted in single or multiple rows to redirect or modify the wind. These plants will

Alley Cropping

Growing an annual or perennial crop simultaneously in the alley ways between rows of a long term tree crop. The agricultural crop generates annual income while the longer-term tree crop matures. Animals can also be incorporated into this system on a

Timber

From the National Woodland Owner survey, the data show that only a small percentage of woodland owners own their land primarily for the production of timber. However, a high percentage of owners do eventually harvest timber. Why the disconnect?

A high percentage of woodland owners manage their land to produce firewood and plan to cut firewood in the next 5 years, primarily for their own use. So, the idea of cutting trees is not the disconnect. The key is that timber production is not why they own land…usually owned for recreation, enjoyment of nature, as their primary residence, hunting, legacy. As we learned earlier, trees will occupy and fully utilize the productivity of the site despite our neglect. If we intervene, we can choose the best trees to keep growing to meet our goals of ownership, while cutting or treating the worst trees perhaps to use as firewood. ("Worst first") To manage these best trees to maximize the income potential for timber on the site requires active integration of informed decision making with cost sharing and marketing opportunities. A sage silviculture professor once said…"do your best work on the best sites first…"

A management plan can identify where such opportunities exist on your property. Sometimes when a logger is working the property next door, those opportunities become more evident to all parties. Well-marked boundaries are essential for informed management. Here are some tips and resources to help you manage your timber before the logger starts harvesting next door.

Steps you can take:

- Reject surprise offers to cut timber on your property. Loggers who make "cold calls" seldom have your interests in mind. The best loggers are always busy and hard to line up. In many cases, landowners have been cheated out of the real value of their timber, thinking that the offer was too attractive to pass up. Check out "Just Say No" to High-Grading for more information.

- Develop a forest management plan. These plans can guide your stewardship and may be required for property tax breaks, cost-share programs, and similar activities. If your plan stipulates a timber sale, contact a DEC Cooperating Consulting Forester.

- Walk your woods with a volunteer Master Forest Owner or a DEC forester. Their free advice will help you gain insights about how timber is managed and sold these days.

- Become an active member of woodland owner organizations like NYFOA or Catskill Forest Association.

Forest Health and Resiliency

Managing healthy forests is a priority for many woodland owners. The pressures our woods face can vary in scale and intensity. They can also be unpredictable as we've seen with increased storm severity, pests and diseases. Building resiliency into your woodlands is one the best ways to ensure your woods can bounce back and adapt.

The Nature Conservancy, in partnership with our colleagues at CCE Onondaga, designed a tool that landowners can use with their forester and peer-to-peer network to help understand the condition of their forest and identify areas to improve health.

The "Keep Forests Healthy" tool is an easy-to-use guide that provides helpful information on pressures, practices and goals. This scorecard is broken out into 4 main categories that identify major features of healthy forests. You can explore your property with the tool in-hand and do an exploratory assessment. Then you can share this tool with your forester to inform management decisions and vulnerabilities.

The 4 categories are:
1. Diversity and Composition
2. Structure
3. Regeneration
4. Site Level Risks

Click here to check out the Keep Forests Healthy Tool

Health & Wellness

When thinking about the health and wellness of your woodlands, it is also great to consider your health and wellness too! As the focus of this month's issue has been around options and opportunities to enhance woodlands, you the user of your woods, should save some space to contemplate how you might go about making improvements that will help you. Check out the article on recreation to learn how to improve physical activities in your woodlands or read on here to explore the mental benefits your woodlands can bring and how to tap into them.

Many, if not all of you, have experienced mental health benefits from our woods, maybe without even realizing it. This concept, which seems to be trending as a new fad is called Forest Bathing in Japanese culture, or shinrin-yoku. You might think, "Sure, maybe I feel more relaxed in the woods, but is it really improving my health?" The answer is YES! Scientists have been working on studies to quantify the ways being connecting to nature improves our mental and physical state.

Here's a list of scientifically proven benefits. Check out the NYS DEC webpage on this subject and connect to the research.

Some of the benefits to your health can include:

- Boosts the immune system
- Lowers blood pressure
- Reduces stress
- Improves mood
- Increases ability to focus, even in children with ADHD
- Accelerates recovery from surgery or illness
- Increases energy level
- Improves sleep

To learn more about this great resource from NYS DEC, check out:

Immerse Yourself in a Forest for Better Health

Woodland Enhancement Resources

Forest Management Support

There are enhancement programs available to either help you plan or support your activities depending on your particular goals and circumstances. Here are a few you can explore:

Forest Stewardship Program - NYS Dept. of Environmental Conservation

Management Assistance Program - Watershed Agricultural Council
(WAC's MAP Program for New York City Watershed only)

Working With A Forester

Choosing a Forester - CCE Columbia & Greene

Finding a Forester - New York Forest Owners Association

Cooperating Forester Program - NYS Dept. of Environment Conservation

Wildlife Enhancements

Enhancing Wildlife Habitat from Cornell Cooperative Extension and the NYS DEC:

Enhancement of Wildlife Habitat on Private Lands from Cornell University CALS:

Wildlife Habitat and Ecosystem Conservation, Enhancement and Management:
NY Master Naturalist Program (Cornell University & Cornell Cooperative Extension):

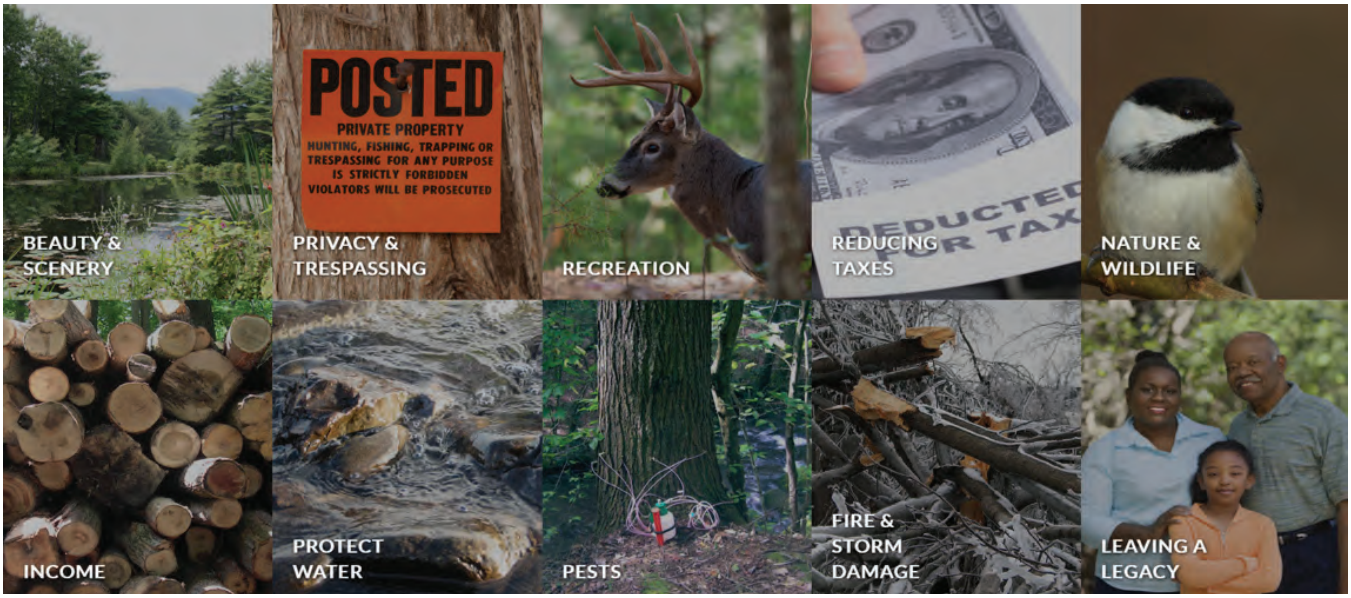
Agroforestry

Cornell Small Farms Program - agroforestry resources, webinars and tools:

CCE Columbia & Greene Agroforestry Resources and 2021 Workshops:

U.S. Dept of Agriculture National Agroforestry Center

Resource Collections



MyWoodlot

As highlighted above, MyWoodlot offers a wide selection of resources on woodlands. There are activities and blogs from professionals and other landowners that highlight projects and ideas that you can actually implement. The activities broadly include beauty and scenery, privacy and trespassing, recreation, reducing taxes, nature and wildlife, income, protecting water, pest, fire and storm damage, and leaving a legacy.

Create your MyWoodlot profile for free to save and organize activities and resources that match your goals. Follow the link below to begin exploring all these resources and keep up to date with new activities that are added weekly!

Visit MyWoodlot

ForestConnect

A Cornell University resource to connect woodland users to the knowledge and resource needed to ensure sustainable production and ecological function on private woodlands. The site houses information for woodland stewards, educational resources and offers countless webinars on a wide variety of woodland topics.

Visit ForestConnect

CCE Columbia & Greene

Visit our site to find resources and more information on upcoming events. Our Natural Resoures Team is also ready to support you in all your woodland stewardship goals. Please reach out if you're looking for specific information, have questions about your woods, or need assistance in determing next steps.

Woodland Owner Networks

Women Owning Woods

We are a group of women landowners and natural resource professionals from the Catskills and the Hudson Valley region of New York. We've organized this group of professionals and landowners as a way to foster learning experiences and discussions about forest property. Details about gatherings will be sent out via email in our eNewsletter. To subscribe to that list you can email wow@nycwatershed.org to join.
Follow us on Facebook to stay connected, share your stories, and learn from your peers.

Find WOW on Facebook

Master Forest Owner Volunteers

The Master Forest Owner (MFO) program provides private woodland owners of New York State with the information and encouragement necessary to manage their forest holdings wisely. Since its inception in 1991, MFOs of Cornell Cooperative Extension have helped over 1,000 landowners. The term "Master" Forest Owner implies education as in "School-Master". Experienced and highly motivated volunteer MFOs are available statewide, ready to assist neighbor woodland owners with the information needed to start managing their woodlands, through free site visits to landowners properties. The training volunteers receive complements their experience as forest owners.

Learn more about the MFO Program

Catskill Forest Association

The Association was formed for the purpose of promoting knowledge and understanding of forest ecology and economics; to promote long-term forest management; to educate the public and enhance the economy of the Catskill region; to demonstrate economically feasible and environmentally sound forest practices: to serve as a source of information about forest management; to serve private landowner rights; and to identify and manage private forest lands dedicated to the demonstration and practices of high standards of forestry.

Learn more about the CFA

New York Forest Owners Association (NYFOA)

The mission of the New York Forest Owners Association (NYFOA) is to promote sustainable forestry practices and stewardship on privately owned woodlands in New York State.

Learn more or join NYFOA

Cornell Cooperative Extension
Columbia and Greene Counties

Agroforestry Resource Center
6055 Route 23
Acra, New York 12405

Postage

Connect

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Mission

Cornell Cooperative Extension Columbia and Greene Counties puts knowledge to work in pursuit of economic vitality, ecological sustainability, and social well-being. We bring local experience and research-based solutions together, helping Columbia and Greene County families and communities thrive in our rapidly changing world.

CCE Columbia and Greene Counties is a registered 501(c)(3) nonprofit.